

**PROJECT NUMBER:** 1503  
**PROJECT TITLE:** Modified Smoking Materials  
**PROJECT LEADER:** W. A. Nichols  
**PERIOD COVERED:** May, 1990

## **I. MOLTEN MENTHOL APPLICATION TO FOIL**

- A. **Objective:** Evaluate the use of a molten menthol applicator as a means of applying menthol to foil without the ethanol carrier.
- B. **Results:** Previous experimentation has established the necessity for the applied menthol to be absorbed into the paper face of the pack foil. Testing is currently in progress to assess how absorption is effected by the sodium silicate adhesive used in laminating the paper and foil. If the adhesive is absorbed into the paper during lamination, absorption of molten menthol could be significantly inhibited
- C. **Plans:** Alternate papers will be investigated to determine if the absorption rate of menthol into paper can be improved.

## **II. SIDSEAM ADHESIVE METERING SYSTEM**

- A. **Objective:** Evaluate a sideseam adhesive metering system, developed by Applied Technology, for use in the Semiworks.
- B. **Results:** Working in collaboration with the Semiworks Process Control group, the sideseam adhesive system was packaged and installed in the Semiworks. Several modifications were made to the system to enhance the control of adhesive application. Currently, target application rates can be achieved with a variation of  $\pm 0.1$  ml/min. The effects on control parameters due to interchange of glue nozzles are currently being studied. Significant improvement was achieved by using air pressure to close the nozzle versus spring pressure. Studies will be conducted to determine the accuracy of adhesive application with and without control and to determine the maximum amount of adhesive application without build-up on machine components.
- C. **Plans:** Cigarette samples will be produced for Project Ambrosia. The process requirements for the production process will be defined.

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